

ABSTRACT OF THE DISCLOSURE

Bottom-emitting organic light-emitting diode device includes a semitransparent, reflective and conductive anode including a metal or metal alloy or both formed over a transparent substrate, a plurality of hole-injecting layers 5 including a bilayer structure having a layer including an oxide and a layer including a fluorinated carbon disposed over the semitransparent, reflective and conductive anode, a plurality of organic layers formed over the plurality of hole-injecting layers and including an emissive layer having an electroluminescent material, and a reflective, opaque and conductive cathode of a metal or metal 10 alloy or both provided over the plurality of organic layers, and the plurality of the hole-injecting layers being configured to reduce the drive voltage, and the transparency of the anode, the reflectivity of the cathode, and the thickness of the organic layers between the electrodes being selected to change the internal reflection of light.